Oklahoma **Grades 6-8**
Process Standards

FlyBy Math™ Alignment
Priority Academic Student Skills
Process Standards

Process Standard 1: Problem Solving	
1. Develop and test strategies to solve practical, everyday problems which may have single or multiple answers.	***FlyBy Math*™ Activities** --Use tables, graphs, and equations to solve aircraft conflict problems.
3. Formulate problems from situations within and outside of mathematics and generalize solutions and strategies to new problem situations.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
5. Apply a variety of strategies (e.g., restate the problem, look for a pattern, diagrams, solve a simpler problem, work backwards, trial and error) to solve problems, with emphasis on multistep and nonroutine problems.	--Use tables, graphs, and equations to solve aircraft conflict problems.
6. Use oral, written, concrete, pictorial, graphical, and/or algebraic methods to model mathematical situations.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes. --Predict outcomes and explain results of mathematical models and experiments.
Process Standard 2: Communication	
1. Discuss, interpret, translate (from one to another) and evaluate mathematical ideas (e.g., oral, written, pictorial, concrete, graphical, algebraic).	***FlyBy Math*™ Activities** --Predict outcomes and explain results of mathematical models and experiments.
2. Reflect on and justify reasoning in mathematical problem solving (e.g., convince, demonstrate, formulate).	--Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.
Process Standard 3: Reasoning	
1. Identify and extend patterns and use experiences and observations to make suppositions.	***FlyBy Math*™ Activities** --Apply mathematics to predict and analyze aircraft conflicts and validate through experimentation. --Predict outcomes and explain results of mathematical models and experiments.

Process Standard 4: Connections	
1. Apply mathematical strategies to solve problems that arise from other disciplines and the real world.	***FlyBy Math™* Activities** --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
Process Standard 5: Representation	
1. Use a variety of representations to organize and record data (e.g., use concrete, pictorial, and symbolic representations).	***FlyBy Math™* Activities** --Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs.
2. Use representations to promote the communication of mathematical ideas (e.g., number lines, rectangular coordinate systems, scales to illustrate the balance of equations).	--Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.
4. Use a variety of representations to model and solve physical, social, and mathematical problems (e.g., geometric objects, pictures, charts, tables, graphs).	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.